

CLAIMS

1. A data transmission processing apparatus for processing a plurality of data in parallel and synchronously carrying out a transmission processing, comprising:

5 a plurality of processing systems which independently process the data, and a plurality of processing system groups having a set of any of the processing systems which is operated at a common time in the processing systems;

a counting unit which counts a plurality of common times
10 corresponding to the respective processing system groups;

a time supply unit which supplies the common time obtained by the counting of the counting unit to all of the processing systems belonging to the corresponding processing system group; and

a counting control unit which starts to count the common time
15 corresponding to one of the processing system groups by the counting unit when receiving transmission processing preparation completion notices from all of the processing systems belonging to the same processing system group.

2. The data transmission processing apparatus as set forth in claim 1,
20 wherein in the case that a transmission processing preparation uncompleted processing system which has not received the transmission processing preparation completion notice is present in the processing systems, the counting control unit starts the counting of the common time corresponding to the processing system group including one of the processing systems
25 completing a transmission processing preparation by the counting unit when

receiving a notice that data stored in a data holding region reach a predetermined constant amount from the same processing system upon receipt of the transmission processing preparation completion notice.

5 3. The data transmission processing apparatus as set forth in claim 1,
 wherein the counting control unit starts the counting of the common time
 corresponding to the processing system group to be an object by the counting
 unit when the counting control unit does not receive any notice from all of the
 processing systems for a predetermined period of time in the case that a
10 processing system completing a transmission processing preparation upon
 receipt of the transmission processing preparation completion notice is present
 and a transmission processing preparation uncompleted processing system
 which has not received the transmission processing preparation completion
 notice is present.

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 4. The data transmission processing apparatus as set forth in claim 1,
 wherein the counting control unit stops the counting of the common time to be
 an object by the counting unit when the counting control unit receives a
 transmission processing disable notice from any one of the processing systems
20 during a transmission processing while the time supply unit supplies the
 common time to the respective processing systems; and

 wherein the counting control unit restarts the counting of the common
 time to be the object by the counting unit when the counting control unit
 receives a transmission processing enable notice from the same processing
25 system again while the time supply unit supplies the common time to the

respective processing systems.

5. The data transmission processing apparatus as set forth in any one of claims 1 to 4, wherein a data processing in the processing system is a transmission processing for reproducing the data.

6. The data transmission processing apparatus as set forth in any one of claims 1 to 4, wherein a data processing in the processing system is a transmission processing for recording the data.

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7. A data transmission processing program for causing each function of all or a part of components of the data transmission processing apparatus according to any one of claims 1 to 6 to be executed by a computer.